## Amendments to the Claims

This listing of claims will replace prior versions and listings of claims in the application:

## Listing of Claims

- 1,-44, (canceled)
- 45. (currently amended) An isolated sentrin-specific protease (SENP) polypeptide comprising the amino acid sequence PIH<sup>L</sup>/<sub>R</sub>XVHW wherein X is a glycine, lysine or glutamic acid.
- 46. (previously presented) The isolated polypeptide of claim 45, comprising at least 25 contiguous amino acid residues of SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.
- 47. (previously presented) The isolated polypeptide of claim 45, comprising at least 50 contiguous amino acid residues of SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.
- 48. (previously presented) The isolated polypeptide of claim 45, comprising at least 100 contiguous amino acid residues of SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.
- (previously presented) The isolated polypeptide of claim 45, comprising at least 150 contiguous amino acid residues of SEQ ID NO: 2, SEQ ID NO: 8, or SEQ ID NO: 10.
- 50. (previously presented) The isolated polypeptide of claim 45, comprising at least 200 contiguous amino acid residues of SEO ID NO: 2, SEO ID NO: 8, or SEO ID NO: 10.
- 51. (previously presented) The isolated polypeptide of claim 48, further comprising amino acid residues 400 to 509 of SEO ID NO: 8.
- 52. (canceled)
- 53. (previously presented) The isolated polypeptide of claim 48, further comprising amino acid residues 461 to 568 of SEQ ID NO: 10.
- (previously presented) The isolated polypeptide of claim 45, comprising SEQ ID NO: 2,
  SEO ID NO: 8, or SEO ID NO: 10.
- (currently amended) An isolated polypeptide comprising at least 25 contiguous amino acids of SEQ ID NO: 2 a-sentrin specific protease-SENP1.
- 56. (cancelled)
- 57. (previously presented) The isolated polypeptide of claim 55, comprising at least 50 contiguous amino acids of SEQ ID NO: 2.

- 58. (previously presented) The isolated polypeptide of claim 55, comprising at least 100 contiguous amino acids of SEQ ID NO: 2.
- 59. (previously presented) The isolated polypeptide of claim 55, comprising at least 150 contiguous amino acids of SEO ID NO: 2.
- 60. (previously presented) The isolated polypeptide of claim 55, comprising at least 200 contiguous amino acids of SEQ ID NO: 2.
- 61. (canceled)
- 62. (canceled)
- (currently amended) The isolated polypeptide of claim 55, wherein the SENP1 polypeptide comprises SEQ ID NO: 2.
- 64. (canceled)
- 65. (canceled)
- 66. (New) A method of purifying the polypeptide of claim 55 from a sample comprising collecting a sentrin-specific protease polypeptide sample; incubating the sample with an antibody that specifically binds the SENP1 polypeptide; and obtaining the SENP1 polypeptide.
- (New) The method of claim 64, wherein the purified SENP1 polypeptide comprises the amino acid sequence of SEQ ID NO: 2.
- 68. (New) The isolated polypeptide of claim 45, comprising the amino acid sequence PIHLGVHW, PIHRKVHW, or PIHLEVHW.